

WHAT IS CLAIMED IS:

1. A 3D image processing unit for applying a specified image processing to display a model located in a simulated 3D space on a monitor after rendering processing, said 3D image processing unit comprising:

a first memory for storing a rendered model image as a collection of pixel data,

a second memory for storing a distance information from a viewing point of a simulated camera in correspondence with each pixel position,

an image processing means for applying averaging and semitransparent processing to each pixel data read from the first memory,

a rewriting means for rewriting the pixel data from the image processing means at the same pixel position as that of the first memory from which the pixel data was read when said distance information from the viewing point of the simulated camera is a specified reference value or larger, and

a control means for causing the image processing means and the rewriting means to repeatedly operate only a specified number of times while successively increasing the specified reference value and successively increasing a degree of transparency,

the image in the first memory being introduced to the monitor after processing by the control means is completed.

2. A 3D image processing unit according to claim 1, wherein the image processing means applies the semitransparent processing to the averaged pixel data.

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3. A 3D image processing unit according to claim 1, wherein the rewriting means does not rewrite the image data at the pixel position where said distance information from the viewing point of the simulated camera is below the specified reference value.

4. A 3D image processing unit according to claim 1, wherein the control means successively increases the specified reference value by a predetermined amount.

5. A 3D image processing unit according to claim 1, wherein the control means successively increases the degree of transparency by a predetermined amount.

6. A 3D image processing unit according to claim 1, further comprising an externally operable member capable of moving the viewing point of the simulated camera in the simulated 3D space as it is operated, and a distance calculating means for calculating the distance from the viewing point of the simulated camera for each pixel position.

7. A computer-readable recording medium storing a 3D image processing program for applying a specified image processing to a model image rendered from a model located in a simulated 3D space and stored in a frame buffer to display the model image to display it on a monitor, said processing program comprising the steps of:

storing a distance information from a viewing point of a simulated camera in correspondence with each pixel position of the model image;

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reading pixel data from the frame buffer and applying averaging and semitransparent processing thereto; for the pixel data at the pixel position where said distance information from the viewing point of the simulated camera is a specified reference value or larger,

rewriting a storage content at the same pixel position of the frame buffer from which the pixel data was read;

repeatedly performing the averaging and semitransparent processing and rewriting a specified number of times while the specified reference value is successively increased and a degree of transparency is successively increased; and

introducing image in the frame buffer to the monitor after such processings are completed.

8. The computer-readable recording medium storing 3D image processing program according to claim 7, wherein the semitransparent processing is applied to the averaged pixel data.

9. The computer-readable recording medium storing 3D image processing program according to claim 7, wherein the rewriting is such that the image data is not rewritten for the pixel position where said distance information from the viewing point of the simulated camera is below the specified reference value.

10. The computer-readable recording medium storing 3D image processing program according to claim 7, wherein the specified reference value is successively increased by a predetermined amount.

11. The computer-readable recording medium storing 3D image processing program according to claim 7, wherein the degree of transparency is successively increased by a predetermined amount.

12. The computer-readable recording medium storing 3D image processing program according to claim 7, wherein the viewing point of the simulated camera is moved as an externally operable member is operated, and the distance from the viewing point of the simulated camera is calculated for each pixel position.

13. A 3D image processing unit for applying a specified image processing to display a model located in a simulated 3D space on a monitor after rendering processing, said 3D image processing unit comprising:

a memory unit for storing a rendered model image as a collection of pixel data and distance information from a viewing point of a simulated camera in correspondence with respect to said pixel data,

image processing unit for applying semitransparent processing to each pixel data read from the memory unit,

rewriting unit for rewriting the pixel data with said distance information from the viewing point of the simulated camera that is a specified reference value or larger, and

control unit for causing the image processing unit and the rewriting unit to repeatedly operate a specified number of times while successively increasing the specified reference value and successively increasing a degree of transparency.